

## Digital Subscriber Line Modem With Automated Line Connection

## ABSTRACT OF THE DISCLOSURE

A DSL modem (50). The DSL modem comprises a connector (62) comprising a first pair of conductors ( $IP_1$ ,  $IP_2$ ) and a second pair of conductors ( $OP_1$ ,  $OP_2$ ). The DSL modem further comprises both circuitry for transmitting according to a DSL protocol (52) and circuitry for receiving according to a DSL protocol (52). Still further, the DSL modem comprises switching circuitry (60) operable to selectively switch to a first position to couple the circuitry for transmitting and the circuitry for receiving to the first pair of conductors and to a second position to couple the circuitry for transmitting and the circuitry for receiving to the second pair of conductors. Lastly, the DSL modem comprises circuitry (52, CONTROL) for controlling the switching circuitry to switch to one of the first position and the second position and for then detecting whether DSL service exists along the pair of conductors to which the circuitry for transmitting and the circuitry for receiving is then coupled.